Securities Finance 2020: *Preparing today for tomorrow*

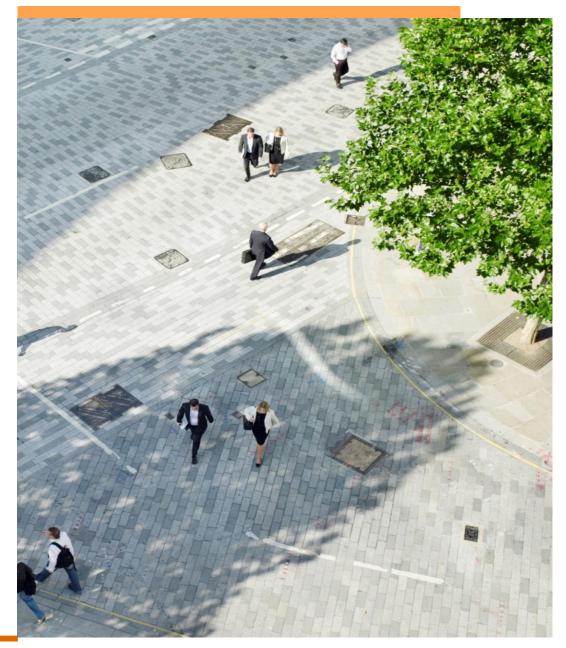






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Executive Summary

Securities Finance performs the vital role of greasing the wheels of financial markets by providing liquidity while at the same time boosting returns on assets. Regulation has introduced permanent changes in the Securities Finance Transactions (SFT) markets including the coupling of Securities Finance activities with the broader collateral management mandate. Securities Finance 2020 attempts to provide insights that can help market participants adapt and function in this new normal.

Historically, the Securities Finance business operated in siloes and was used to support short term funding and provide low risk returns. Availability of ample liquidity allowed the SFT function to operate in a silo model. However, the financial crisis of 2008 and the slew of ensuing regulations (Basel III, Bilateral Margining Regulations, Money Market Reforms, etc.) fundamentally re-aligned the SFT markets. As a consequence, market participants are forced to collateralize trading activities and dealers are required to be cognizant of the impact of shortterm wholesale funding activities on their balance sheets. Amid these changes, buy-side participant funding, liquidity, and returns/additional alpha undiminished. needs remain Proactive management of this demand-supply mismatch requires market participants to consider solutions that can support integrated, enterprise-wide management of collateral.

This paper serves to identify and examine the trends likely to occur in Securities Finance over the next five years and the foundational elements necessary to manage these trends. The regulations that occurred as a result of the financial crisis have created a tectonic shift in the way participants look at Securities Financing; formerly a back office function SFTs are now front and center in effective capital markets management.

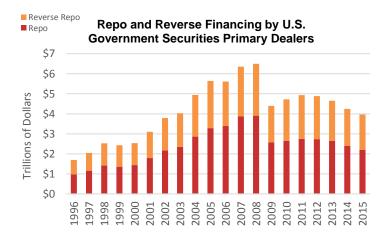
Looking ahead, market participants should perform an internal examination to determine how best to tackle the SFT trends with foundational elements from an enterprise-wide and silo-agnostic manner while ensuring alignment with broader firm initiatives. Irrespective of participant profile, the foundational (sophisticated elements risk capabilities, pre-trade analytics, enterprise-wide collateral management, integration with market infrastructure, use of tri-party arrangements, robust reporting, and record keeping) are critical in establishing effective Securities Financing operations.

Market participants, at a minimum, need to assess their current state, identify improvement opportunities to unleash synergies, and consider various methods of implementation. The impact of financial regulations has made current operations untenable; what participants are doing today will not suffice tomorrow. While each participant profile is unique and has its own challenges, an internal investigation on how to thrive in a changing world sets the clearest execution roadmap to Securities Finance 2020.

Securities Finance: Historical Evolution

Securities Finance emerged during the 1960s in the United Kingdom and gained prominence globally shortly thereafter. Securities Finance consists of repurchase agreements ("repos") and securities lending ("sec lending") and is used as a mechanism to provide market liquidity and boost returns on assets. The market for securities finance spans the globe and recent estimates have sized the global repo market at approximately \$10 trillion and the total market value of securities on loan through securities lending agreements at approximately \$2 trillion.*

Repurchase agreements are contracts in which the seller of a security agrees to repurchase the same security from the buyer at an agreed price at a specified future date, while securities lending agreements are contracts governing the lending of securities by one party to another for a specified period of time. Historically, repo acted as a macro business concerned with overall financing, through the use of Fed Settlement assets and Fixed Income while securities lending behaved with a micro focus: supporting the retail brokerage network by managing individual CUSIPs that were 'special' and divided across multiple asset classifications (e.g., ADRs, ETFs, etc.).



Evolution of Repo and Securities Lending 1970s U.S. custodian banks begin securities lending programs. Dealers contribute to the growth in securities and repo business. Setup of the Depository Trust 19805 Company (DTC) increases trading activity. Dealer failures lead to growth in tri-party repos. Debt increases in G10 governments encourages growth in lending and repo activity. 1990s First GMRA published. Lowering of regulatory, tax and structural barriers contribute to an expansion in securities lending and repo business. 2000s Definition of repo expanded to include all mortgage-related repos. First version of GMSLA published 2008 Financial crisis results in precipitous drop in Securities Finance business 2016 -Regulatory focus on balance sheet disintermediates dealer participation in Securities Finance Markets, alternate models emerge

Securities financing has traditionally been a high volume, low margin business supporting the needs of various business lines (e.g., Equities, Fixed Income, FX, Derivatives, PB, Commodities, etc.), each of which functioned in silos. Margins for lenders in the securities financing markets were generally lean, while the cost of borrowing was low. However, silos limited organizational synergies which in turn limited opportunities for more business. material. substantive Furthermore. technology and operational spend was commensurate thereby further limiting opportunities.

*Data represents the total value of European repo and reverse repo obtained through the ICMA December 2015 survey, which included 72 participants. The data uses March 2016 exchange rates. Data from SIFMA and The Federal Reserve represents the US Repo and reverse repo market. Data from Markit as of April 12, 2016. Data is from the "Reference Guide to U.S. Repo and Securities Lending Markets" published by the New York Fed.

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Securities Finance: Today



- Capacity constraints on indemnification provided to borrowers
 Infrastructure spend/upgrades to support regulatory mandates
- Imrastructure spend/upgrades to support regulatory man

Securities Finance is in the midst of a structural change, with significant consequences for the sell side, buy side, and agent lenders brought about by regulations that are intended to reduce systemic risk and increase transparency. Participants are compelled by regulation to not only collateralize exposures but also manage the impact of short term funding activity on regulatory thresholds.

Specifically, regulatory requirements are forcing dealers to re-examine short term wholesale funding models against anticipated regulatory impact (e.g., increased funding costs, balance sheet usage, risk profiles of lenders, etc.). Dealers are now viewing some SFT activity as loss-leaders. Consequently, the dealer-client business is experiencing a shift from a relationship-based engagement to a metric driven approach (e.g., balance sheet consumption vs. profitability) where services are offered on a prioritized and sometimes exclusive basis to profitable buy-side clients. Amid these changes, buy-side participants' funding and liquidity needs remain undiminished with asset managers, hedge funds, and pension funds, still seeking funding and returns/alpha.

The imbalance between the services offered by the sell-side and those required by the buy-side have increased the costs of transacting in Securities Finance markets. Furthermore, due to Basel III ratios, principal and agent lenders (often custodian banks) are also becoming discerning regarding who occupies valued balance sheet space. Basel III ratios impose restrictions on how much balance sheet can be occupied by short term wholesale funding. Further, these ratios levy additional punitive capital requirements for financing non-high quality liquid assets. These restrictions may also increase operational complexity and require participants to increase indemnification fees as a control mechanism.

In sum, the SFT markets are evolving due to the substantial movement between traditional dealer/agent lender's regulatory compliance requirements and the needs of buy side participants. A continuation of these forces is expected to result in a permanent realignment of the SFT markets. 5

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SFT 2020: Seven trends for the future

By the year 2020, the impact of global financial **Market transparency and reporting mandates** regulations is expected to be fully realized by Securities Financing market participants. While activities related to achieving regulatory compliance will likely become recurring/BAU in nature, market participants are expected to continue/intensify the quest for optimally sourcing collateral, funding, and liquidity. This drive is expected to permanently realign SFT markets as a result of the following trends:

Direct buy-side participation in new trading and clearing models

Limited credit intermediation due to dealer balance sheet constraints is likely to spur buy-side participation on peer-to-peer trading platforms. Dealers and Agent lenders are expected to evolve and provide fee-based services such as valuations and operations support. In addition, innovative central counterparty party structures and membership models (e.g. membership sponsored by a dealer) that can satisfy buy-side counterparty risk, clearing cost, and portability requirements are likely to gain prominence.

2 Diversification of collateral used to secure transactions

Preference to hold High Quality Liquid Assets (HQLA), low returns, better pricing for non-cash transactions, the uptick in central clearing, and the support provided by tri-party agents are expected to shape the behavior of market participants and result in wider acceptance of non-cash (e.g., equities) collateral.

3 Use of Securities Finance as an enterprisewide economic allocation function

Securities finance will be increasingly used as an enterprise-wide economic allocation function that is responsible for mobilizing collateral across products, depots, and silos, centrally optimizing collateral inventory by promoting internalization, and increasing collateral velocity bv leveraging opportunities to reuse/rehypothecate collateral (where permissible).

supporting Securities Lending, Repo, and **OTC Derivatives**

the

The search for synergies will contribute to the convergence of product silos that were managed separately. Enterprise level goals to optimize balance sheet usage, minimize collateral funding costs, boost returns/alpha, reduce operating asset and expenditure will require firms to consolidate operations and develop integrated front-to-back office operating models that can support multiple products.

As banks withdraw from market making activities,

securities financing is expected to be further cast into

"shadow

counterbalance, regulatory and market requirements

are likely to focus on reporting repo and securities

lending transactions to trade repositories, tracking

rehypothecation of collateral, storing transaction

data, and disseminating detailed reports to specific

Convergence of post-trade infrastructure

banking".

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domain

of

market segments (e.g. beneficial owners).

6 Adoption of disruptive technologies

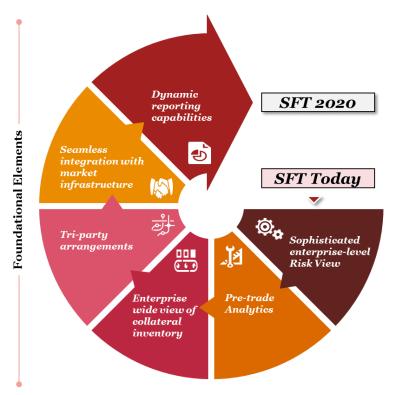
While there is both enthusiasm and skepticism in equal measure around whether Blockchain technology replace could existing market infrastructure, there is no doubt that it is a trend worth watching. Regarding Securities Finance, potential benefits of a Blockchain enabled solution include streamlined settlement processes, improved operational reconciliation. efficiencies, and reduction in risk.

IT costs rationalization, move to SaaS models

There is a prevalence of firms using multiple tactical IT solutions that have been implemented over years to support what are now increasingly de-siloed business lines. These demands are leading financial institutions to look at ways to rationalize their IT infrastructure and as a result they are increasingly evaluating strategic vendor solutions available in the market. Firms are replacing multiple legacy systems with a single offering and accepting of the benefits of SaaS/cloud based models as a way to reduce IT footprint and associated costs. 6

Foundational Elements

The structural changes evident within the SFT market requires participants to develop/enhance capabilities that can support efficient sourcing and mobilization of collateral, funding, and liquidity. The foundational elements for SFT 2020 are expected to be prioritized and developed incrementally per each participant's funding needs/expectations.



A **sophisticated enterprise-level risk view** of counterparties, trading agreements, products, portfolios, and transactions, across geographies, silos, and desks will be required to ensure that collateral and funding sources and uses are congruent with enterprise risk mandates.

Pre-trade analytics capabilities that support simulation of 'what-if' scenarios and provide a view of the collateral, funding, and liquidity impact of securities financing decisions (e.g., collateral costs, balance sheet/RWA impacts, etc.) will be required to support optimized trading/financing decisions.

enterprise-wide view of collateral An inventory is required to internalize collateral sourcing and funding (to the greatest extent possible). Technology capabilities are required to support an aggregated real-time global inventory integrating cash and non-cash inventory from multiple geographic locations and business lines. This would allow for features such as grouping, sorting, and filtering of global, real-time inventory containing 100% of all cash, firm, GMRA, GMSLA, ISDA trades and other sources/uses of inventory to create an accurate view of the world to support every trading decision.

Use of tri-party arrangements to augment posttrade processing including trade valuation, performance attribution, loan and collateral movement, and managing/tracking settlement against specific eligibility criterion.

Seamless integration with market infrastructure, which includes trading venues such as peer-to-peer trading platforms, electronic trading venues, central counterparties, and data vendors, in order to ensure continued access to the funding and liquidity markets globally.

Finally, **dynamic reporting capabilities for securities financing transactions/exposure** will be required to ensure compliance with future regulatory mandates focused on the "shadow banking" business. Given the possible emergence of peer-to-peer platforms, CCPs, etc., data aggregation and reporting capabilities need to be considered in the quest for a responsive and relatively automated reporting function.

Conclusion

The unrelenting regulatory onslaught will continue to force Securities Finance market participants to contemplate their role in the future Securities Finance environment. Gone are the days of 'acceptable' inefficiencies throughout repo and securities lending desks. Securities Finance market participants formerly concerned only with overall financing through repo activities and supporting retail brokerage networks through securities lending, must now consider cross-organizational effects. The impact of current regulations has already begun reshaping the Securities Finance market of tomorrow.

The seven trends for the future represent the ongoing and potential changes that will shape securities finance for years to come. Some trends may cease to be relevant in the near future due to the mercurial nature of technology, ideas, and solutions, but all of the trends need to be monitored as firms cannot afford to be left behind.

To survive, and possibly thrive, in the midst of a paradigm shift requires a strong set of foundational elements, such as: sophisticated risk capabilities, analytics, enterprise-wide pre-trade collateral management, integration market with infrastructure, use of tri-party arrangements, and robust reporting and record keeping. Although future success is not solely contingent upon the implementation of all foundational elements, a subset is likely required to remain competitive.

Realizing the foundational elements is possible through in-house development, vendor solutions, utilities, or a combination of the three. Regardless of the implementation mechanism, however, a few considerations need to be examined. The selected solution should be scalable to support additional regulatory oversight without constant injections of operational expenditure. It should also support industry leading capabilities and functions while maintaining flexibility to support bespoke needs. Finally, the selected solution should be agile enough to be implemented in modules while preserving existing infrastructure and limiting IT environment renovation.

Securities Finance Market participants should approach the future SFT landscape from a tactical and strategic perspective to transcend reactive measures and develop holistic solutions.

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